

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-29 (Cancelled).

30. (Currently Amended) A process for producing a refuse derived solid fuel and feeding said fuel to a combustion plant, which comprises:

providing a first component consisting of a dry fraction of solid urban waste in a shredded form;

providing at least one second component in a shredded form selected from an elastomeric material and a thermoplastic material, or mixtures thereof;

separately metering and feeding said first component and said at least one second component onto a continuous conveyor in such a way so as to form overlapping layers of said components;

discharging said components so assembled into at least one temporary accumulation container so as to form the refuse derived solid fuel; and

feeding and metering the refuse derived solid fuel so obtained to a combustion plant.

31. (Previously Presented) The process according to claim 30, wherein the thermoplastic material mainly comprises a material obtained from the shredding of chlorine-free waste plastics materials.

32. (Previously Presented) The process according to claim 31, wherein at least 90% of the weight of thermoplastic material has an average particle dimension not exceeding 25 mm.

33. (Previously Presented) The process according to claim 30, wherein the elastomeric material mainly consists of a material obtained from the shredding of waste tyres after separation of the metal and/or textile reinforcing members.

34. (Previously Presented) The process according to claim 33, wherein at least 90% by weight of the elastomeric material has an average particle dimension not exceeding ranging from 5 mm to 25 mm.

35. (Previously Presented) The process according to claim 30, wherein the dry fraction of the solid urban waste is obtained from an unprocessed solid urban waste by mechanical separation of putrescible organic fraction, separation of metal materials, shredding and optionally, drying.

36. (Previously Presented) The process according to claim 30, wherein the dry fraction of solid urban waste is obtained by subjecting a raw solid urban waste to a process of biostabilisation and subsequently a process of removing a fine fraction.

37. (Previously Presented) The process according to claim 36, wherein the removed fine fraction has a dimension of less than 80 mm.

38. (Previously Presented) The process according to claim 30, wherein at least 90% by weight of the dry fraction of solid urban waste has an average particle dimension not exceeding 25 mm.

39. (Previously Presented) The process according to claim 30, wherein the dry fraction of solid urban waste has a moisture content not exceeding 15% by weight.

40. (Previously Presented) The process according to claim 39, wherein the dry fraction of solid urban waste has a moisture content not exceeding 10% by weight.

41. (Previously Presented) The process according to claim 30, wherein the produced refuse derived solid fuel is subjected to a stage of compaction, transported to the combustion plant, and then subjected to a disaggregation stage before the stage of feeding it to the combustion plant.

42. (Previously Presented) The process according to claim 41, wherein the compacting stage is carried out so as to obtain a compacted refuse derived solid fuel with a bulk density of 0.50 to 0.95 g/cm³.

43. (Previously Presented) The process according to claim 42, wherein the compacting stage is carried out in such a way so as to obtain a compacted refuse derived solid fuel with a bulk density of 0.60 to 0.90 g/cm³.

44. (Previously Presented) The process according to claim 30, wherein the stage of metering and feeding said first component and said at least one second component onto a continuous conveyor takes place separately, each through at least one metering screw and subsequently a weighing system.

45. (Previously Presented) The process according to claim 44, wherein said at least one metering screw has an advancing rate regulated in relation to the quantity of each component weighed by the corresponding weighing system.

46. (Previously Presented) The process according to claim 30, wherein the continuous conveyor collects the various components in the form of successive overlapping layers having a bulk density which increases from the bottom toward the top.

47. (Previously Presented) The process according to claim 46, wherein a lower layer of the thermoplastic material, an intermediate layer of the dry fraction of the solid urban waste, and an upper layer of the elastomeric material is formed on the continuous conveyor belt.

48. (Previously Presented) The process according to claim 30, wherein the obtained refuse derived solid fuel has the following composition:

40-90% by weight of the dry fraction of the refuse derived solid fuel; and
10-60% by weight of at least one polymer material selected from elastomeric material and thermoplastic material, or mixtures thereof.

49. (Previously Presented) The process according to claim 48, wherein the obtained refuse derived solid fuel has the following composition:

60-80% by weight of the dry fraction of solid urban waste; and
20-40% by weight of at least one polymer material selected from elastomeric material and thermoplastic material, or mixtures thereof.

50. (Previously Presented) The process according to claim 48, wherein the obtained refuse derived solid fuel has the following composition:

40-90% by weight of dry fraction of refuse derived solid fuel;
5-55% by weight of at least one elastomeric polymer material; and
5-55% by weight of at least one thermoplastic polymer material.

51. (Previously Presented) The process according to claim 50, wherein the obtained refuse derived solid fuel has the following composition:

60-80% by weight of the dry fraction of the solid urban waste;

10-30% by weight of at least one elastomeric polymer material; and

10-30% by weight of at least one thermoplastic polymer material.

52. (Previously Presented) The process according to claim 30, wherein the obtained refuse derived solid fuel has a bulk density of less than 0.60 g/cm^3 .

53. (Previously Presented) The process according to claim 52, wherein the refuse derived solid fuel obtained has a bulk density of 0.35 to 0.12 g/cm^3 .

54. (Currently Amended) A plant for producing a refuse derived solid fuel, comprising:

at least one storage container for a first component consisting of a dry fraction of solid urban waste in a shredded form;

at least one metering and feeding device for said first component;

at least one storage container for at least one second component in shredded form selected from an elastomeric material and a thermoplastic material;

at least one metering and feeding device for said at least one second component;

at least one continuous conveyor onto which said components are fed separately by said feeding and metering devices so as to form overlapping layers of said components; and

at least one ~~temporary~~ accumulation container into which said components are discharged by said at least one continuous conveyor.

55. (Previously Presented) The plant according to claim 54, further comprising at least one storage container for at least one third component in shredded form also selected from an elastomeric material and a thermoplastic material, different from the second component, and at least one metering and feeding device for said at least one third component.

56. (Previously Presented) The plant according to claim 54, wherein said metering and feeding devices comprise at least one metering screw and a weighing system.

57. (Previously Presented) The plant according to claim 56, wherein said at least one metering screw has an advancing rate which is regulated in relation to the quantity of each component weighed by the corresponding weighing system.

58. (Previously Presented) The plant according to claim 54, further comprising a device for compaction of the obtained refuse derived solid fuel.